Amendment dated: November 15, 2004

Reply to Office Action of: June 15, 2004

AMENDMENTS TO THE SPECIFICATION:

Page 2, replace paragraph 5, as follows:

To achieve the above objects, the present invention provides a light beam which emits from the light source to impinge into the prism and passe pass through the first surface of the prism directly to illuminate the light valve which is placed near the first surface and parallels the first surface. By the reflection of the light valve, the light beam impinges into the first surface again, and illuminates a total internal reflection surface with an incident angle larger than the critical total reflection angle, so as to reflect the light beam out of the second surface of the prism and impinge to projection lens to form an image. Furthermore, a lens or an auxiliary prism is arranged between the light source and total internal reflection surface to reduce the optical path difference.

Page 3, replace paragraph 8, as follows:

The optical path of the optical system 20 of the present embodiment is described as below. The light source 21 provides a light beam 211. The light beam 211 impinges into the prism 24 with a specific angle, passes through the first surface 242 of the prism 24, impinges to the light valve 22 which is apparel parallel to the first surface 242, and forms a light beam 212 with images. After reflecting being reflected by the light valve 22, the light beam 212 impinges into the first surface 242 of the prism 24 again, and impinges into the total internal surface 241 with an incidental angle larger than the critical total reflection angle. By the total reflection, the light beam 212 is reflected from the second surface 243 to the projection lens 23, and, then, forms the projection images.

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Page 3, replace paragraph 9, as follows:

In the optical system 20 of the present embodiment, the optical path from the light source 21 to the projection lens 23 is shown as dotted lines. The optical path Only only impinges into the total internal reflection surface 241, travels through and impinges into the first surface 242, and pass passes through the second surface 234, which the four steps cause minimize portion reflection to lose loss. Compared with the six times of portion reflection of the prior art apparatus, the light beam of the present invention loses less. In addition, the optical system 20 of the present embodiment doesn't have a vacant space, which reduces the relative transmission angles are excessive to affect the transmissivity, so the transmissivity of the present embodiment can reaches reach about 98%.

Page 3, replace the last paragraph (bridging pages 3 and 4), as follows:

Furthermore, referring to FIG. 4, the light source 21 of the present embodiment directly illuminates from the upper, passes through the prism 24, and impinges onto the light valve 22. Not only increase the transmissivity of the light beam 211 and raise the illumination efficiency, but allow the four edges of the light valve 22 are to be parallel to the four edges of the first surface 242 to prevent the reflection light beam 212 from being intercepted by the edges of the prism 24. Then, the light beam 212 impinges onto the total internal reflection surface 241 with an incident angle larger than the critical total reflection angle, is reflected passing through the second surface 243, and finally impinges into the projection lens 23. Therefore, the size of the prism 24 can be compact and the back-focus of the optical devices can be reduced to reduce the volume of the whole optical system and, furthermore, to economize the component material cost.